CLAIMS

We claim:

1. A viral vector system for transducing or infecting a target adipose tissue cell comprising a viral vector, wherein the viral vector is pseudotyped with a nucleotide sequence that encodes at least part of an env protein.

2. The viral vector system of claim 1, wherein the env protein is a rabies G protein, a VSV-G protein, a cocal virus glycoprotein, a chandipura virus glycoprotein, or a mutant, homologue or fragment thereof.

3. The viral vector system of claim 1, wherein the viral vector system is derived from a retrovirus, a poxvirus, a herpes virus, a baculovirus, an adenovirus and an adeno-associated virus.

4. The viral vector system of claim 3, wherein the retrovirus is a lentivirus.

5. The viral vector system of claim 4, wherein the lentivirus is EIAV or HIV.

6. The viral vector system of claim 1, wherein the viral vector system comprises at least one nucleotide sequence of interest (NOI).

7. The viral vector system of claim 6, wherein the NOI is a selection gene, a marker gene, a therapeutic gene, an antisense sequence or a cDNA library.

8. The viral vector system of claim 6, wherein the NOI blocks or inhibits the expression of a gene in a target cell.

9. The viral vector system of claim 6, wherein at least part of the NOI integrates into the genome of a target cell.

10. The viral vector system of claim 6, wherein the NOI encodes a protein of interest (POI).

11. The viral vector system of claim 10, wherein the POI is a therapeutic protein.

12. A target adipose tissue cell transduced or infected with the viral vector system of claim 1.

13. A method of transducing or infecting a target adipose tissue cell comprising contacting the cell with a viral vector system comprising a viral vector, wherein the viral vector is pseudotyped with a nucleotide sequence that encodes at least part of an env protein.

14. The method of claim 13, wherein the env protein is a rabies G protein, a VSV-G protein, a cocal virus glycoprotein, a chandipura virus glycoprotein, or a mutant, homologue or fragment thereof.

15. The method of claim 13, wherein the viral vector system is derived from a retrovirus, a poxvirus, a herpes virus, a baculovirus, an adenovirus and an adeno-associated virus.

16. The method of claim 15, wherein the retrovirus is a lentivirus.

17. The method of claim 16, wherein the lentivirus is EIAV or HIV.

18. The method of claim 13, wherein the viral vector system comprises at least one nucleotide sequence of interest (NOI).

19. The method of claim 18, wherein the NOI is a selection gene, a marker gene, a therapeutic gene, an antisense sequence or a cDNA library.

20. The method of claim 18, wherein the NOI blocks or inhibits the expression of a gene in a target cell.

21. The method of claim 18, wherein at least part of the NOI integrates into the genome of a target cell.

22. The method of claim 18, wherein the NOI encodes a protein of interest (POI).

23. The method of claim 22, wherein the POI is a therapeutic protein.

24. A method of delivering an NOI to a target adipose tissue cell, comprising contacting the cell with the viral vector system of claim 6.

25. A method of analysing the function of a gene present in a target adipose tissue cell, or of a protein encoded by the gene, comprising contacting the target adipose tissue cell with the viral vector system of claim 8, whereby expression of the gene is blocked or inhibited by the NOI.

26. A method of treating a disease associated with adipose tissue metabolism in a subject in need of the same, comprising transducing a target adipose tissue cell with the viral vector system of claim 1.

27. The method of claim 26, wherein the disease is caused by or associated with obesity, diabetes, or both.

28. The method of claim 26, wherein the target adipose tissue cell is transduced *ex vivo* and transplanted into the subject.